

OPTIMIZATION TECHNIQUE FOR LAYERED MODULATION

ABSTRACT OF THE DISCLOSURE

A method and apparatus for optimizing a system for transmitting a layered
5 modulated signal is disclosed. The method comprises the steps of defining the system in
terms of a set of system parameters, including an optimal power separation S between a
power of a first modulation layer and a power of a second modulation layer and a required
system carrier-to-noise ratio (CNR_S), determining an optimal power separation S to
minimize the error rate of a lower layer modulated signal BER_L , and selecting the
10 remaining system parameters in the set of system parameters using the determined
optimal power separation S .

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